

Title (en)
ULTRASONIC ANALYZERS

Publication
EP 0295893 A3 19900516 (EN)

Application
EP 88305467 A 19880615

Priority
• JP 14840687 A 19870615
• JP 14840787 A 19870615
• JP 15292387 A 19870619

Abstract (en)
[origin: EP0295893A2] An ultrasonic analyzer for use in an ultrasonic diagnosis instrument includes: a first unit (100) for determining a start point (t1) and an end point (t2) at an analysis interval (T) to be analyzed based on an analysis selection signal (w(t)) and a time signal (t) for an input time-series signal (y(t)) reflected from a medium; second units (110, 120, 130, 140) for generating four kinds of integration values (x1 to x4) based on four kinds of multiplication signals, each of the multiplication signals being calculated by multiplying the analysis selection signal (w(t)) by the time signal (t), or a square signal (t²) of the time signal, or a product signal (y(t).t) of the time signal (t) and the time-series signal (y(t)), or by the time-series signal (y(t)); third units (111,112; 121,122; 131,132; 141,142) for storing each of the integration values (x1 to x4) by using the time signal (t) as an address for storing; and a fourth unit (150) for calculating a slope of a regression curve based on differences between the integration values (x1 to x4), a determination of the differences being based on the start point (t1) and the end point (t2) at the analysis interval (T). Such an analyzer can enable high precision measurement of an acoustic characteristic of an echo signal reflected from a medium.

IPC 1-7
A61B 8/00

IPC 8 full level
A61B 8/06 (2006.01); **G01S 7/52** (2006.01)

CPC (source: EP US)
A61B 8/06 (2013.01 - EP US); **G01S 7/52026** (2013.01 - EP US); **G01S 7/52036** (2013.01 - EP US)

Citation (search report)
• [A] US 4512195 A 19850423 - MIWA HIROHIDE [JP], et al
• [A] EP 0166836 A1 19860108 - CGR ULTRASONIC [FR]
• [A] US 4574635 A 19860311 - T HOEN PIETER J [US]

Cited by
EP0384977A3; US5163013A; CN100402797C; US5877997A; WO9624027A3; WO03104602A3

Designated contracting state (EPC)
DE FR GB NL SE

DOCDB simple family (publication)
EP 0295893 A2 19881221; **EP 0295893 A3 19900516**; **EP 0295893 B1 19940921**; DE 3851576 D1 19941027; DE 3851576 T2 19950126; US 4836210 A 19890606

DOCDB simple family (application)
EP 88305467 A 19880615; DE 3851576 T 19880615; US 20490888 A 19880610